Report By:

National TAB
1329 E. KEMPER ROAD
SUITE 4210
CINCINNATI, OH 45246

Report: TAB REPORT

Function: Test, Adjust, & Balance

Date: 05/01/2025

Completed By: National TAB

PROJECT

04-28-25 WALGREENS #6937 AURORA, IL (REACTIVE)

1221 N LAKE ST

AURORA , IL 60506

Client

Walgreens

200 WILMOT RD

DEERFIELD, IL 60015

National TAB

Project: 04-28-25 WALGREENS #6937 AURORA, IL (REACTIVE)

Table Of Contents

Project Summary

The summary below provides a quick understanding of our scope of work and general testing procedures. Enclosed in the report is further detail about your building performance including recommendations, asset data, and pictures. Our focus is to work with the trades to remedy any issues or deficiencies during the actual field balancing and not after the balancing has occurred to achieve a positive environment and outcome. The level of success is determined by the availability of the trades, possible parts needed, or time constraints.

Commissioning Activities
Equipment was inspected to ensure that the installation meets Walgreens requirements. Control and equipment setpoints were checked and after balancing was completed performance of each unit was verified. The full list of items that were verified along with any that failed are contained in the checklists in this report.

RTU's (Roof Top Units) w/ Diffusers
Each of the RTU's were measured at their terminal devices or via traverse to establish a total flow for that unit. Each RTU was adjusted to within tolerance per Walgreens standards. Each outlet was then adjusted to within tolerance. Outside air was measured by reading the intake air opening with a velocity grid and multiplying by the free area. The outside air damper was adjusted until the airflow was within the design requirements. Any equipment that fell outside of that tolerance is noted throughout the report.

General Exhaust Fans w/ Grilles
The general exhaust fans were measured by reading each air device with a flow hood. The total airflow for each fan is equivalent to the sum of these readings. Fan speed was then adjusted so that the airflow was within tolerance. Each terminal device was balanced to within tolerance of the design volume using the installed volume dampers. Any equipment that fell outside of this tolerance is noted throughout the report.

Issue List

- EF-2/EF-3 vibration
- RTU Economizers not functional
- RTU-3 diffusers low on flow
- RTU-4 not operational

04-28-25 WALGREENS #6937 AURORA, IL (REACTIVE)

Project Issue Information

Issue Name : EF-2/EF-3 vibration

Description : EF-3/EF-2 have a significant vibration sound coming from them when turned down past a certain point on speed controller. When set at design CFM fans become louder. Recommend mechanical inspect for loose parts or fan misalignment. Increasing fan speed to lowest speed without vibration might be an option.

Created By : National TAB

Assigned To : National TAB - Dylan Crisman

Status : Open

Priority : Low

Asset Tag :

Originated Date : 04/30/2025 - Dylan Crisman - National TAB

Project Issue File Details

04/30/2025

04/30/2025

04-28-25 WALGREENS #6937 AURORA, IL (REACTIVE)

Project Issue Information

Issue Name :	RTU Economizers not functional		
Description :	Economizers for all RTUs are not functional. Manually set to achieve design OA airflow. Recommend mechanical inspect economizer wiring and controllers to correct for proper functionality.		
Created By :	National TAB	**Assigned To :**	National TAB - Dylan Crisman
Status :	Open		
Priority :	High	**Asset Tag :**	
Originated Date :	04/28/2025 - Dylan Crisman - National TAB		

04-28-25 WALGREENS #6937 AURORA, IL (REACTIVE)

Project Issue Information

Issue Name : RTU-4 not operational

Description : RTU-4 is not operational, it appears the blower wheel has fallen out of alignment and the fan housing is dented and sunken along the back, appears someone has attempted to repair. Unable to determine current status of repairs with store managers.

Created By : National TAB

Assigned To : National TAB - Dylan Crisman

Status : Open

Priority : Urgent

Asset Tag :

Originated Date : 04/28/2025 - Dylan Crisman - National TAB

Project Issue File Details

04/28/2025

04/28/2025

04/28/2025

National TAB

Project: 04-28-25 WALGREENS #6937 AURORA, IL (REACTIVE)

- Open Walgreens_Balance_Schedule_4_.xlsx

CheckList List

- 01 RTU INSTALLATION CHECKLIST
- 02 EXHAUST FANS INSPECTIONS
- 04 EMS/SENSOR VALIDATION
- 05 TAB CHECKLIST
- 06 FUNCTIONAL TESTS
- 07 TEMPERATURE SETPOINTS
- 08 ENTRANCE HEATERS

04-28-25 WALGREENS #6937 AURORA, IL (REACTIVE)

CheckList Information

Name :	01 RTU INSTALLATION CHECKLIST	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	04/22/2025 - Nicole Seever - National TAB		
Completed Date :	04/30/2025 - Dylan Crisman - National TAB		

CheckList Item Details

General / Exterior Inspections

Verify all required equipment has been replaced per TA and BOM.	Pass
Comment:	
All units are installed in the proper locations	Pass
Comment:	
Units are labeled correctly	Pass
Comment:	
Asset tag installed	Pass
Comment:	
Roof is clear of debris.	Pass
Comment:	
Maintenance access for all unit access panels is acceptable and panels open freely.	Pass
Comment:	
Cabinet and general installation is complete.	Pass

Comment:

Unit is secure to curb and level horizontally and vertically.	Pass

Comment:

Access doors close tightly with no leaks	Pass

Comment:

Condensate and gas piping is properly supported.	Pass

Comment:

Costgaurd is installed per scope of work and piping unions are cemented.	Pass

Comment:

Additional Comments

Comment:

Interior Inspections

Fan rotation is correct	Pass

Comment:

Pulleys are correctly aligned and both motor and fan sheave pins are tightened in place.	Pass

Comment:

Return air and outside air dampers close tightly with no gaps	Pass

Comment:

Cabinet and coils are not damaged and in like new condition.	Pass

Comment:

Inside of unit is clean and clear of debris.	Pass

Comment:

Validate condesate is piped to splash block, draing, or roof drain per code requirements	Pass

Comment:

Verify filters are installed, clean and of proper size. Verify there is no air by-pass around filters.	Pass

Comment:

Curb is sealed with no air leakage.	Pass

Comment:

Additional Comments:

Comment:

Fire/Smoke Alarm Systems

In duct smoke detectors are installed	Pass

Comment:

Fire alarm panel status (visual inspection where possible)

Comment:

Nothing appears on screen.

Additional Comments:

Comment:

Electrical

Electrical wiring is complete with no visible damage	Pass

Comment:

Electrical connections are tight with sealtight around any unit penetrations.	Pass

Comment:

Disconnect switch is installed in accessible location near or on unit.	Pass

Comment:

Verify overcurrent protection is HACR type, installed and sized correctly and labeled in panel.	Pass

Comment:	
Maintenance electrical outlet is installed and functional.	Pass
Comment:	
Main distribution panel is labeled correctly.	Pass
Comment:	
Unit ground wire is secured.	Pass
Comment:	
Additional Comments:	
Comment:	

04-28-25 WALGREENS #6937 AURORA, IL (REACTIVE)

CheckList Information

Name :	02 EXHAUST FANS INSPECTIONS	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	04/22/2025 - Nicole Seever - National TAB		
Completed Date :	04/29/2025 - Dylan Crisman - National TAB		

CheckList Item Details

Fan rotation is correct	Pass
Comment:	
Pulleys are aligned and belts are tensioned properly	
Comment: NA/DD	
Speed controller installed and functional (direct drive)	
Comment: Yes	
Fan is secured to the curb	Pass
Comment:	
Back draft damper is installed and functional	Pass
Comment:	
No exterior damage to the fan	Pass
Comment:	
No unusual noise or vibration	Pass

Comment:	
Controls are functional	Pass
Comment:	
Additional Comments:	
Comment:	

04-28-25 WALGREENS #6937 AURORA, IL (REACTIVE)

CheckList Information

Name :	04 EMS/SENSOR VALIDATION	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	04/22/2025 - Nicole Seever - National TAB		
Completed Date :	04/30/2025 - Dylan Crisman - National TAB		

CheckList Item Details

RTU supply air temp sensor location located per start-up binder.	Pass
Comment:	
RTU return air temp sensor location located per start-up binder.	Pass
Comment:	
RTU return air smoke detector (when applicable) is located per start-up binder.	Pass
Comment:	
Space temperature sensor has been replaced and location meets requirements.	Pass
Comment:	
Space humidity sensor has been replaced and location meets requirements.	Pass
Comment:	
Unit is being controlled by a space temperature sensor or thermostat	Pass
Comment:	
EMS has been connected and validated with TOC or Gridpoint. Screen shot is available.	Fail

Comment:

Replaced RTUs 2 and 3 are connected through local thermostat.

No splicing of EMS/Sensor/Thermostat wiring is visible	Pass

Comment:

(If Applicable) 2 Stage Thermostat to SE Board Control Wiring meets detail in start-up binder.

Comment:

Yes

(If Applicable) 2 Stage Thermostat to 4 Stage Unit meets detail in start-up binder.

Comment:

Yes

(If Applicable) 4 Stage Thermostat to 4 Stage Unit meets detail in start-up binder.

Comment:

Yes

(If Applicable) 3 Stage Thermostat wiring meets detail in start-up binder.

Comment:

Yes

(If Applicable) 3 Stage Thermostat with Humidity sensor wiring meets detail in start-up binder.

Comment:

Yes

(If Applicable) EH Thermostat with SCR control wiring meets detail in start-up binder.

Comment:

Yes

Temperature setpoints are set for correction region and space (see ASHRAE / temperature setpoint chart in procedure)	Fail

Comment:

Controls company would not change temperature setpoints without a proper service order made from Walgreens to them prior to changing.

Additional Comments:

Comment:

04-28-25 WALGREENS #6937 AURORA, IL (REACTIVE)

CheckList Information

Name :	05 TAB CHECKLIST	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	04/22/2025 - Nicole Seever - National TAB		
Completed Date :	04/30/2025 - Dylan Crisman - National TAB		

CheckList Item Details

Outside air damper set to minimum air flow requirement and damper position marked.	Pass
Comment:	
Total Supply, return, and outside air volumes meet design tolerances (+/-10%)	Pass
Comment:	
Enclosed area diffusers (Pharmacies, manager office, employee room, restrooms, electrical rooms) balanced within +/-10%?	Pass
Comment:	
Open area diffusers (Sales floor and stock room) balanced within +/-25% of design?	Pass
Comment:	
Store pressure meets tolerances (see formula in balance schedule). Make sure to account for existing exhaust fans airflows as shown on original drawings that are non-functioning.	Pass
Comment:	
Outside air and return air dampers modulate freely.	Fail
Comment:	

OA dampers are not functional on all RTUs. OA damper had to be manually set to achieve minimum OA airflow requirement.

Start-up report from the installing contractor is reviewed and all information if filled out. All required measurements are within typical ranges.	Pass

Comment:

(If Applicable) VFD is set-up and operational. (N/A = not applicable)

Comment:

Yes

Verify amp draw of motor is within unit specification, not operating in overamped condition.	Pass

Comment:

Sales floor temperature and humidity measurement

Comment:

69.8F/41.6%RH

Pharmacy temperature and humidity measurement

Comment:

70.9F/40.2%RH

Stock Room temperature and humidity measurement

Comment:

69.7F/38.7%RH

Outdoor air temperature and humidity measurement

Comment:

62.3F/41.6%RH

Additional Comments:

Comment:

04-28-25 WALGREENS #6937 AURORA, IL (REACTIVE)

CheckList Information

Name :	06 FUNCTIONAL TESTS	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	04/22/2025 - Nicole Seever - National TAB		
Completed Date :	04/30/2025 - Dylan Crisman - National TAB		

CheckList Item Details

Cooling Functional Test

Overwrite the thermostat or sensor to put the unit into cooling mode.	Pass
Comment:	
Compressors enable.	Pass
Comment:	
If fan has VFD, the fan increases speed.	Pass
Comment:	
Document the discharge air temperature.	
Comment:	
RTU-1 48.8F RTU-2 50.8F RTU-3 51.1F RTU-5 52.4F RTU-6 51.7F	
After 10 minutes, Discharge air temperature is below 55 degrees.	Pass
Comment:	
Cooling mode is operational	Pass
Comment:	

Additional Comments:

Comment:

Heating Functional Test

Overwrite the thermostat or sensor to put the unit into heating mode.	Pass

Comment:

Heat exchanger enables.	Pass

Comment:

If fan has VFD, the fan increases speed.	Pass

Comment:

Document the discharge air temperature.

Comment:

RTU-1 131.5F RTU-2 132.1F RTU-3135.4F RTU-5 127.8F RTU-6 129F

After 10 minutes, Discharge air temperature is above 85 degrees.	Pass

Comment:

Heating mode is operational	Pass

Comment:

Additional Comments

Comment:

Dehumidification Functional Test

Overwrite the humidistat to put the unit into dehumidification mode.	Pass

Comment:

Compressors enable.	Pass

Comment:

Hot Gas Reheat Valve opens	Pass

Comment:

If fan has VFD, the fan increases speed.	Pass

Comment:

Document the discharge air temperature.

Comment:

RTU-2 64.6F RTU-3 66.2F

Dehumidification Mode is operational. (Pass/Fail/NA)

Comment:

Pass for RTU-2/RTU-3. N/A for all other 4 RTUs.

Additional Comments:

Comment:

Economizer Functional Test

Overwrite the humidistat to put the unit into economizer mode.	Pass

Comment:

Economizer modulates from minimum position to 100% open. (Pass/Fail/NA)

Comment:

Fail, economizer does not function. Manually set min position.

Additional Comments:

Comment:

04-28-25 WALGREENS #6937 AURORA, IL (REACTIVE)

CheckList Information

Name :	07 TEMPERATURE SETPOINTS	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	04/22/2025 - Nicole Seever - National TAB		
Completed Date :	04/29/2025 - Dylan Crisman - National TAB		

CheckList Item Details

Temperature setpoints must be set using provided charts are based on state and space that each RTU serves. Confirm with controls company that these are set correctly	Fail

Comment:

Controls company would not change temperature setpoints without a proper service order made from Walgreens to them prior to changing.

04-28-25 WALGREENS #6937 AURORA, IL (REACTIVE)

CheckList Information

Name :	08 ENTRANCE HEATERS	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	04/22/2025 - Nicole Seever - National TAB		
Completed Date :	04/29/2025 - Dylan Crisman - National TAB		

CheckList Item Details

Sensor is located within 15' of entrance area	Pass
Comment:	
Confirm proper operation of entrance heater and associated controls	Pass
Comment:	
Balance supply air quantity to manufacturer recommended supply airflow.	Pass
Comment:	
Confirm listed temperature rise and discharge air temperature based on approved BOM/submittal	Pass
Comment:	

National TAB

Project: 04-28-25 WALGREENS #6937 AURORA, IL (REACTIVE)

System/Unit: AHU/RTU

Asset: EH1 AREA:FRONT DOOR

Unit Data		
	Design	**Actual**
MFG	NA	REZNOR
Serial Num	-	NL
Model Num	NA	NL
Type	-	UNIT HEATER
Configuration	-	VERTICAL
Num Final Filter 1	-	1
Final Filter Size 1	-	32x25
Num Final Filter 2	-	1
Final Filter Size 2	-	32x20

Drive Data	
	Actual
Motor Sheave Size	4”
Motor Bore Size	5/8”
Motor Sheave SetPt	2 TURNS OPEN
Fan Sheave Size	7”
Fan Sheave Bore	1”
Belt CL Distance	14”
Num of Belts	1
Belt Size	AX42
Belt Alignment	VERIFIED

Test Data		
	Design	**Actual**
SF CFM	2000	2093
SF RPM	-	1072
RA CFM	-	2093
OA CFM	0	0
RL Voltage	-	209/208/209
RL Amperage	-	1.9/2.0/2.0
SF Rotation	-	CW
SF System SetPt	-	2 TURNS OPEN

Performance Data		
	Design	**Actual**
Fan Suction SP	-	-0.55"
Fan Discharge SP	-	0.31"
Total ESP	-	0.86"
Fan Total SP	-	0.86"

General	
	Actual
Fan Rotation Correct	YES
Unit Filters Clean	YES
Condensate Drain Installed	YES

Completed By: Dylan Crisman on 04/30/2025

Unit Data - PHOTO LOG

04/28/2025

National TAB

Project:04-28-25 WALGREENS #6937 AURORA, IL (REACTIVE)

AHU/RTU

Diffuser Supply (GRD)

EH1/FRONT DOOR

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	FRONT DOOR			1000	1.0	1059	1059	1059	105.9
SGRD2	FRONT DOOR			1000	1.0	1034	1034	1034	103.4
Total				2000		2093	2093	2093	104.65%

Completed By: Dylan Crisman on 04/29/2025

National TAB

Project: 04-28-25 WALGREENS #6937 AURORA, IL (REACTIVE)

System/Unit: AHU/RTU

Asset: RTU1 AREA:FRONT SALES/ENTRY

Unit Data			
	Design		Actual
MFG	TRANE	SF CFM	TRANE
Serial Num	-	SF RPM	1APM225L
Model Num	YHC092F3RHA0EF0A0A20600030000D000000000	RA CFM	YHC092
Type	RTU	OA CFM	RTU
Configuration	VERTICAL	RL Voltage	VERTICAL
Num OA Filters 1	-	RL Amperage	1
OA Filter Size 1	-	SF Rotation	20X17
Num Final Filter 1	-	SF System SetPt	2
Final Filter 1	-	RA Damper Position	49X21

Motor Data		
	Design	Actual
Horsepower	7.5	3.80
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	8.5

Test Data		
	Design	Actual
SF CFM	3150	3060
SF RPM	-	NA
RA CFM	2678	2576
OA CFM	472	484
RL Voltage	-	210/210/210
RL Amperage	-	3.8/3.4/3.9
SF Rotation	-	CW
SF System SetPt	-	4.6VDC
RA Damper Position	-	MECHANICAL LINKAGE
Min OA Damper Position	-	3/4” OPEN
Min OA Damper Type	-	ECONOMIZER
OA Enthalpy Setpt	-	D

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.21”
Fan Suction SP	-	-0.33”
Fan Discharge SP	-	0.32”
Total ESP	0.50"	0.53”
Fan Total SP	-	0.65”

General	
	Actual
Fan Rotation Correct	YES
Unit Filters Clean	YES
Condensate Drain Installed	YES

Completed By: Dylan Crisman on 04/30/2025

Notes:
Economizer not functional, OA damper manually set to achieve design airflow.

Written By: Dylan Crisman on 05/20/2025

Unit Data - PHOTO LOG

04/28/2025

National TAB

Project:04-28-25 WALGREENS #6937 AURORA, IL (REACTIVE)

AHU/RTU

Diffuser Supply (GRD)

RTU1/FRONT SALES/ENTRY

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	FRONT SALES/ENTRY	2	24X24"	800	1.0	763	763	763	95.4
SGRD2	FRONT SALES/ENTRY	2	24X24"	500	1.0	505	505	505	101.0
SGRD3	FRONT SALES/ENTRY	5	6X24"	200	1.0	209	209	209	104.5
SGRD4	FRONT SALES/ENTRY	5	6X24"	200	1.0	228	228	228	114.0
SGRD5	FRONT SALES/ENTRY	5	6X24"	200	1.0	212	212	212	106.0
SGRD6	FRONT SALES/ENTRY	5	6X24"	200	1.0	223	223	223	111.5
SGRD7	FRONT SALES/ENTRY	5	6X24"	200	1.0	226	226	226	113.0
SGRD8	FRONT SALES/ENTRY	5	6X24"	200	1.0	217	217	217	108.5
SGRD9	FRONT SALES/ENTRY	2	24X24"	500	1.0	477	477	477	95.4
Total				3000		3060	3060	3060	102%

National TAB

Project: 04-28-25 WALGREENS #6937 AURORA, IL (REACTIVE)

System/Unit: AHU/RTU

Asset: RTU2 AREA:FRONT SALES/OFFICE/PHOTO

Unit Data		
	Design	**Actual**
MFG	YORK	YORK
Serial Num	-	N2A3372345
Model Num	ZT078N18R2B5GCA2R2	ZT078
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	29X21
Num Final Filter 1	-	2
Final Filter Size 1	-	47X19.5

Motor Data		
	Design	**Actual**
Motor MFG	-	BALDOR-RELIANCE
Frame	-	56Hz
Horsepower	7.5	2.0
Motor Rpm	-	1750
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	5.8

Drive Data	
	Actual
Motor Sheave Size	5"
Motor Bore Size	1"
Motor Sheave SetPt	3 TURNS OPEN
Fan Sheave Size	7"
Fan Sheave Bore	1"
Belt CL Distance	19.5"
Num of Belts	1
Belt Size	A54
Belt Alignment	VERIFIED

Test Data		
	Design	**Actual**
SF CFM	3125	3026
SF RPM	-	953
RA CFM	2656	2539
OA CFM	469	481
RL Voltage	-	210/209/210
RL Amperage	-	7.3/7.3/7.7
SF Rotation	-	CW
SF System SetPt	-	2 TURNS OPEN
RA Damper Position	-	MECHANICAL LINKAGE
Min OA Damper Position	-	1/2” OPEN
Min OA Damper Type	-	ECONOMIZER
OA Enthalpy Setpt	-	27B

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.82”
Fan Suction SP	-	-0.87”
Fan Discharge SP	-	0.60
Total ESP	0.50"	1.42”
Fan Total SP	-	1.47”

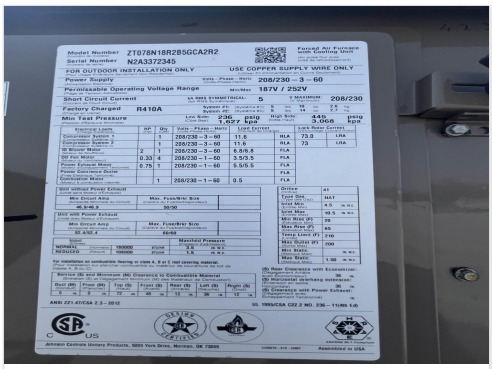
General	
	Actual
Fan Rotation Correct	YES
Unit Filters Clean	YES
Condensate Drain Installed	YES

Completed By: Dylan Crisman on 04/30/2025

Notes:
Economizer not functional, OA damper manually set to achieve design airflow.

Written By: Dylan Crisman on 05/20/2025

Unit Data - PHOTO LOG



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National TAB

Project:04-28-25 WALGREENS #6937 AURORA, IL (REACTIVE)

AHU/RTU

Diffuser Supply (GRD)

RTU2/FRONT SALES/OFFICE/PHOTO

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	FRONT SALES	2	24X24"	375	1.0	401	401	401	106.9
SGRD2	FRONT SALES	2	24X24"	375	1.0	379	379	379	101.1
SGRD3	TRAINING ROOM	2	24X24"	200	1.0	188	188	188	94.0
SGRD4	PASSAGE	2	24X24"	200	1.0	191	191	191	95.5
SGRD5	OFFICE	2	24X24"	500	1.0	464	464	464	92.8
SGRD6	1 HR PHOTO	2	24X24"	500	1.0	462	462	462	92.4
SGRD7	1 HR PHOTO	2	24X24"	600	1.0	576	576	576	96.0
SGRD8	FRONT SALES	2	24X24"	375	1.0	365	365	365	97.3
Total				3125		3026	3026	3026	96.83%

Completed By: Dylan Crisman on 04/29/2025

National TAB

Project: 04-28-25 WALGREENS #6937 AURORA, IL (REACTIVE)

System/Unit: AHU/RTU

Asset: RTU3 AREA:REAR SALES/BREAKROOM

Unit Data		
	Design	**Actual**
MFG	CARRIER	CARRIER
Serial Num	-	0203G30605
Model Num	48HJF008G	48HJF008G
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	35X20
Num Final Filter 1	-	2
Final Filter Size 1	-	42X16.5

Motor Data		
	Design	**Actual**
Motor MFG	-	GE MOTORS
Frame	-	56Y
Motor Rpm	-	1620
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	7.5

Drive Data	
	Actual
Motor Sheave Size	5"
Motor Bore Size	1"
Motor Sheave SetPt	2TURNS OPEN
Fan Sheave Size	7”
Fan Sheave Bore	1”
Belt CL Distance	19.5”
Num of Belts	1
Belt Size	AX54
Belt Alignment	VERIFIED

Test Data		
	Design	**Actual**
SF CFM	3658	3390
SF RPM	-	867
RA CFM	3308	3018
OA CFM	350	372
RL Voltage	-	209/209/210
RL Amperage	-	7.9/8.2/8.0
SF Rotation	-	CW
SF System SetPt	-	1 TURN OPEN
RA Damper Position	-	MECHANICAL LINKAGE
Min OA Damper Position	-	1/4” OPEN
Min OA Damper Type	-	ECONOMIZER

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.78”
Fan Suction SP	-	-0.97”
Fan Discharge SP	-	0.53”
Total ESP	0.50"	1.31”
Fan Total SP	-	1.5”

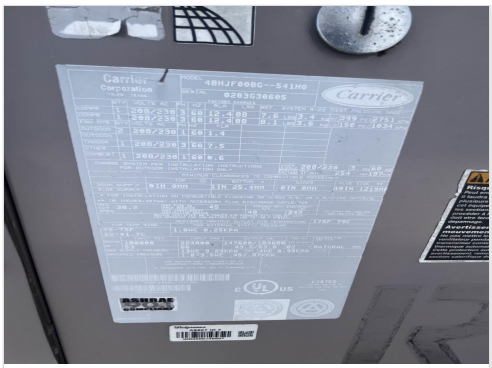
General	
	Actual
Fan Rotation Correct	YES
Unit Filters Clean	YES
Condensate Drain Installed	YES

Completed By: Dylan Crisman on 04/30/2025

Notes:
[1]420cfm/ton puts this unit at 3150CFM but plans call for 3658CFM or 487 CFM/ton. Unit is at 3398CFM with fan motor at FLA and motor sheave at 1 turn open.
[2] Sales floor ductwork inaccessible. Unable to reach dampers and push air to diffusers 1 and 2.
[3] Economizer not functional, OA damper manually set to achieve design airflow.

Written By: Michael McDonnell on 05/20/2025

Unit Data - PHOTO LOG



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National TAB

Project:04-28-25 WALGREENS #6937 AURORA, IL (REACTIVE)

AHU/RTU

Diffuser Supply (GRD)

RTU3/REAR SALES/BREAKROOM

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	PASSAGE #1	2	12X12"	360	1.0	194	223	223	61.9
SGRD2	REAR SALES	2	12X12"	400	1.0	223	256	256	64.0
SGRD3	REAR SALES	2	24X24"	966	1.0	765	880	880	91.1
SGRD4	REAR SALES	2	24X24"	966	1.0	879	1010	1010	104.6
SGRD5	REAR SALES	2	24X24"	966	1.0	888	1021	1021	105.7
Total				3658		2949	3390	3390	92.67%

Completed By: Dylan Crisman on 05/20/2025

National TAB

Project: 04-28-25 WALGREENS #6937 AURORA, IL (REACTIVE)

System/Unit: AHU/RTU

Asset: RTU4 AREA:REAR SALES

Unit Data		
	Design	**Actual**
MFG	YORK	YORK
Serial Num	-	N2M3998293
Model Num	ZT078N18R2B5GCE2R2	ZT078N
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	29X21
Num Final Filter 1	-	2
Final Filter Size 1	-	47X19.5

Motor Data		
	Design	**Actual**
Motor MFG	-	BALDOR-RELIANCE
Frame	-	56Hz
Horsepower	2	2.0
Motor Rpm	-	1750
Phase	3	3
Rated Voltage	230	208
Rated Amperage	-	5.8

Drive Data	
	Actual
Motor Sheave Size	5"
Motor Bore Size	1"
Motor Sheave SetPt	3 TURNS OPEN
Fan Sheave Size	7"
Fan Sheave Bore	1"
Belt CL Distance	19.5"
Num of Belts	1
Belt Size	A54
Belt Alignment	VERIFIED

Test Data		
	Design	**Actual**
SF CFM	2730	0
OA CFM	300	0
SF Rotation	-	CW
SF System SetPt	-	3 TURNS OPEN
RA Damper Position	-	MECHANICAL LINKAGE
Min OA Damper Type	-	ECONOMIZER
OA Enthalpy Setpt	-	27B

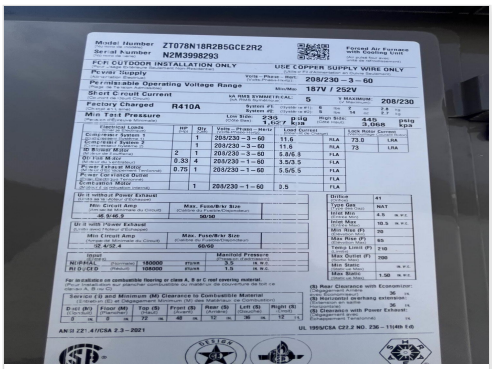
General	
	Actual
Fan Rotation Correct	YES
Unit Filters Clean	YES
Condensate Drain Installed	YES

Completed By: Dylan Crisman on 05/20/2025

Notes:
RTU-4 is not operational, could not balance to design airflow. Issue created.

Written By: Michael McDonnell on 05/20/2025

Unit Data - PHOTO LOG



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National TAB

Project:04-28-25 WALGREENS #6937 AURORA, IL (REACTIVE)

AHU/RTU

Diffuser Supply (GRD)

RTU4/REAR SALES

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	REAR SALES	2	24X24"	1200	1.0	0	0	0	0.0
SGRD2	REAR SALES	2	24X24"	1200	1.0	0	0	0	0.0
SGRD3	REAR SALES	2	24X24"	1200	1.0	0	0	0	0.0
Total				3600		0	0	0	0%

Completed By: Dylan Crisman on 05/20/2025

National TAB

Project: 04-28-25 WALGREENS #6937 AURORA, IL (REACTIVE)

System/Unit: AHU/RTU

Asset: RTU5 AREA:STOCK ROOM

Unit Data		
	Design	**Actual**
MFG	CARRIER	CARRIER
Serial Num	-	5002G20402
Model Num	48HJE005G	48HJE005G
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	28X14
Num Final Filter 1	-	1
Final Filter Size 1	-	35X24

Motor Data		
	Design	**Actual**
Motor MFG	-	GE MOTORS
Horsepower	0.63	1.0
Motor Rpm	-	1620
Phase	3	1
Rated Voltage	208	208
Rated Amperage	-	4.90

Drive Data	
	Actual
Motor Sheave Size	3.25"
Motor Bore Size	1/2"
Motor Sheave SetPt	2 TURNS OPEN
Fan Sheave Size	4"
Fan Sheave Bore	5/8"
Belt CL Distance	14.5"
Num of Belts	1
Belt Size	AX36
Belt Alignment	VERIFIED

Test Data		
	Design	**Actual**
SF CFM	1600	1633
SF RPM	-	916
RA CFM	1425	1446
OA CFM	175	187
RL Voltage	-	210/211/211
RL Amperage	-	2.5/2.4/2.5
SF Rotation	-	CW
SF System SetPt	-	2 TURNS OPEN
RA Damper Position	-	MECHANICAL LINKAGE
Min OA Damper Position	-	0.25” OPEN
Min OA Damper Type	-	ECONOMIZER

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.20”
Fan Suction SP	-	-0.38”
Fan Discharge SP	-	0.23
Total ESP	0.50"	0.43”
Fan Total SP	-	0.61”

General	
	Actual
Fan Rotation Correct	YES
Unit Filters Clean	YES
Condensate Drain Installed	YES

Completed By: Dylan Crisman on 04/30/2025

Notes:
Economizer not functional, OA damper manually set to achieve design airflow.

Written By: Dylan Crisman on 05/20/2025

Unit Data - PHOTO LOG

04/28/2025

04/28/2025

Diffuser Supply (GRD)

RTU5/STOCK ROOM

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	STOCK ROOM	5	14X14"	800	1.0	862	801	801	100.1
SGRD2	STOCK ROOM	5	14X14"	800	1.0	895	832	832	104.0
Total				1600		1757	1633	1633	102.06%

National TAB

Project: 04-28-25 WALGREENS #6937 AURORA, IL (REACTIVE)

System/Unit: AHU/RTU

Asset: RTU6 AREA:PHARMACY

Unit Data		
	Design	**Actual**
MFG	CARRIER	CARRIER
Serial Num	-	0803G50105
Model Num	48HJF006G	48HJF006G-541HQ
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	28X14
Num Final Filter 1	-	1
Final Filter Size 1	-	35X24

Motor Data		
	Design	**Actual**
Motor MFG	-	MARATHON
Frame	-	56Y
Motor Rpm	-	1725
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	5.2

Drive Data	
	Actual
Motor Sheave Size	3.75"
Motor Bore Size	5/8"
Motor Sheave SetPt	2 TURNS OPEN
Fan Sheave Size	4"
Fan Sheave Bore	7/8"
Belt CL Distance	14.75"
Num of Belts	1
Belt Size	AX38
Belt Alignment	VERIFIED

Test Data		
	Design	**Actual**
SF CFM	2100	1979
SF RPM	-	1272
RA CFM	2100	1979
OA CFM	0	0
RL Voltage	-	211/210/209
RL Amperage	-	4.6/4.3/4.4
SF Rotation	-	CW
SF System SetPt	-	2 TURNS OPEN
RA Damper Position	-	MECHANICAL LINKAGE
Min OA Damper Position	-	CLOSED
Min OA Damper Type	-	ECONOMIZER

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.53”
Fan Suction SP	-	-0.88”
Fan Discharge SP	-	0.38”
Total ESP	0.50"	0.91”
Fan Total SP	-	1.26”

General	
	Actual
Fan Rotation Correct	YES
Unit Filters Clean	YES
Condensate Drain Installed	YES

Completed By: Dylan Crisman on 04/30/2025

Notes:
Economizer not functional, OA damper manually set to achieve design airflow.

Written By: Dylan Crisman on 05/20/2025

Unit Data - PHOTO LOG

04/28/2025

04/28/2025

National TAB

Project:04-28-25 WALGREENS #6937 AURORA, IL (REACTIVE)

AHU/RTU

Diffuser Supply (GRD)

RTU6/PHARMACY

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	PHARMACY	2	24X24"	575		658	567	567	98.6
SGRD2	PHARMACY	2	24X24"	575		505	588	588	102.3
SGRD3	PHARMACY	2	24X24"	575		546	560	560	97.4
SGRD4	PATIENT SEATING	2	24X24"	275		290	264	264	96.0
Total				2000		1999	1979	1979	98.95%

Completed By: Dylan Crisman on 04/29/2025

National TAB

Project: 04-28-25 WALGREENS #6937 AURORA, IL (REACTIVE)

System/Unit: FAN - Exhaust

Asset: EF2 AREA:EMPLOYEE BREAKROOM

Unit Data		
	Design	**Actual**
MFG	GREENHECK	PENNBARRY
Model Num	G-80-DGEX-QD-D	DX11Q
Serial Num	-	F23OZ80299
Type	DOWNBLAST	DOWNBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	GENTEQ
Horsepower	-	1/5
Motor Rpm	-	1725
Phase	1	1
Voltage (rated)	120	115
Amperage (rated)	-	3.0
Service Factor	-	1.15

Test Data		
	Design	**Actual**
CFM	300	314
Fan RPM	-	314
Fan Rotation	-	CCW
Motor RPM	-	314
System SetPt	-	MARKED@SPEED DIAL
RL Voltage	-	[2]
RL Amperage	-	[2]
Total ESP	0.375"	0.29”
Fan Inlet SP	-	-0.29”
Fan Discharge SP	-	ATM

Completed By: Dylan Crisman on 04/29/2025

Notes:
[1] Exhaust fan has significant noise/vibration when set at a lower speed to achieve design airflow.
[2] Exhaust fan is lightswitch configuration, unable to safely obtain amps and volts.

Written By: Michael McDonnell on 05/20/2025

Unit Data - PHOTO LOG

04/28/2025

04/28/2025

National TAB

Project: 04-28-25 WALGREENS #6937 AURORA, IL (REACTIVE)

System/Unit: FAN - Exhaust

Asset: EF3 AREA:MENS + WOMENS RESTROOM

Unit Data		
	Design	**Actual**
MFG	GREENHECK	PENNBARRY
Model Num	G-95-DGEX-QD-G	DX11Q
Serial Num	-	DX11QF23OZ80301
Type	DOWNBLAST	DOWNBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	GENTEQ
Horsepower	0.125	1/5
Motor Rpm	-	1725
Phase	1	1
Voltage (rated)	120	115
Amperage (rated)	-	3.0
Service Factor	-	1.15

Test Data		
	Design	**Actual**
CFM	500	508
Fan RPM	-	1725
Fan Rotation	-	CCW
Motor RPM	-	1725
System SetPt	-	MAX SPEED AT DIAL
RL Voltage	-	[2]
RL Amperage	-	[2]
Total ESP	0.375"	0.41”
Fan Inlet SP	-	-0.41”
Fan Discharge SP	-	ATM

Completed By: Dylan Crisman on 04/28/2025

Notes:
[1]Exhaust fan has significant noise/vibration when set at a lower speed to achieve design airflow.
[2] Exhaust fan is lightswitch configuration, unable to safely obtain amps and volts.

Written By: Michael McDonnell on 05/20/2025

Unit Data - PHOTO LOG

04/28/2025

04/28/2025

National TAB

Project:04-28-25 WALGREENS #6937 AURORA, IL (REACTIVE)

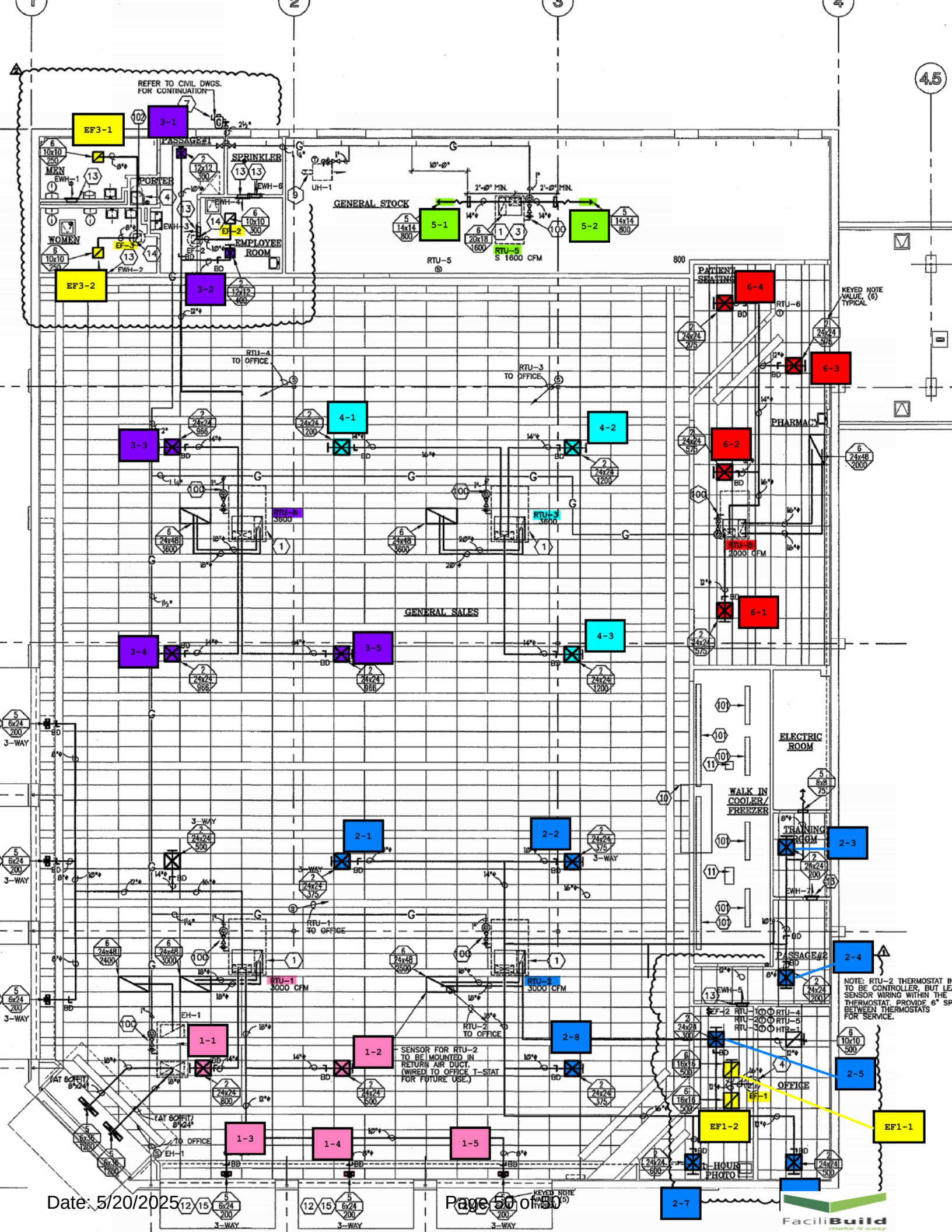
FAN - Exhaust

Diffuser Ret/Exh (GRD)

EF3/MENS + WOMENS RESTROOM

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
EGRD1	MENS RESTROOM	6	10X10"	250	1.0	261	261	261	104.4
EGRD2	WOMENS RESTROOM	6	10X10"	250	1.0	247	247	247	98.8
Total				500		508	508	508	101.6%

Completed By: Dylan Crisman on 04/28/2025


REFER TO CIVIL DWGS. FOR CONTINUATION
EF3-1
3-1
PASSAGE#1
SPRINKLER
MEN
PORTER
WOMEN
EF-3
EF-2
EMPLOYEE ROOM
EF3-2
3-2
GENERAL STOCK
5-1
5-2
RTU-5
S 1600 CFM
PATIENT SEATING
6-4
RTU-6
KEYED NOTE VALUE, (6) TYPICAL
6-3
RTU-4 TO OFFICE
RTU-3 TO OFFICE
4-1
4-2
3-3
PHARMACY
6-2
RTU-4 3600
RTU-3 3600
RTU-6 2000 CFM
GENERAL SALES
3-4
3-5
4-3
6-1
ELECTRIC ROOM
WALK IN COOLER/ FREEZER
TRAINING ROOM
2-1
2-2
2-3
RTU-1 TO OFFICE
RTU-1 3000 CFM
RTU-2 3000 CFM
PASSAGE#2
2-4
NOTE: RTU-2 THERMOSTAT IN TO BE CONTROLLER, BUT LEA SENSOR WIRING WITHIN THE THERMOSTAT. PROVIDE 6" SP BETWEEN THERMOSTATS FOR SERVICE.
1-1
1-2
2-8
RTU-2 TO OFFICE
SENSOR FOR RTU-2 TO BE MOUNTED IN RETURN AIR DUCT. (WIRED TO OFFICE T-STAT FOR FUTURE USE.)
OFFICE
2-5
EF1-2
EF1-1
1-3
1-4
1-5
1-HOUR PHOTO
2-7
3-WAY
TO OFFICE
(AT SOFFIT) 8"x24"